

What is claimed is:

1. A dual-axis hinge mechanism, comprising:

a fixed bracket;

a pivot shaft rotatably extended through the fixed bracket;

a first limiting member rotatably sleeved on the pivot shaft;

a second limiting member non-rotatably sleeved on the pivot shaft, the second limiting member being rotated a rotatable angle following the pivot shaft, and then driving the first limiting member to rotate together with the second limiting member;

wherein the total of the rotatable angle of the second limiting member relative to the first limiting member and the rotatable angle of the first limiting member relative to the fixed bracket is 360 degrees, the first limiting member forms a latching protrusion and a limiting tab; the second limiting member forms a latching tab; the dual-axis hinge mechanism further comprises a restricting module assembled on the fixed bracket, the restricting module comprises a first restricting member and a second restricting member; the second limiting member further forms a limiting protrusion; the limiting tab of the first limiting member abuts the first restricting member to prevent the pivot shaft from rotating further in a first direction; the limiting protrusion of the second limiting member abuts the second restricting member to prevent the pivot shaft from rotating further in a second direction.

2. The dual-axis hinge mechanism of claim 1, wherein the restricting module further comprises a pin; the first restricting member is fixed on the fixed bracket;

the second restricting member is rotatably assembled on the fixed bracket by the pin; the first restricting member comprises a main body and a restricting portion thinner than the main body; the thickness difference between the main body and the restricting portion is larger than the thickness of the second restricting member, thus the second restricting member can be rotated into a gap defined between the restricting portion and the fixed bracket.

3. The dual-axis hinge mechanism of claim 2, wherein the restricting module further comprises a torsion spring non-rotatably sleeved on the pin; the second restricting member comprises two side walls; the torsion spring comprises a first latching portion and a second latching portion respectively abutting inner surfaces of the side walls of the second restricting member.

4. The dual-axis hinge mechanism of claim 1, further comprising a positioning member non-rotatably sleeved on the pivot shaft; the fixed bracket defines a positioning groove, the positioning member forms a positioning protrusion engaged in the positioning groove of the fixed bracket.

5. The dual-axis hinge mechanism of claim 1, further comprising a frictional piece, a protecting member, a resilient member, a flat washer sleeved on the pivot shaft, and a fastening member engaged on an end of the pivot shaft.

6. A dual-axis hinge mechanism, comprising:

a rotatable bracket;

a first rotatable assembly rotatably assembled on the rotatable bracket; and

a second rotatable assembly pivotally assembled to the rotatable bracket, the second rotatable assembly comprising:

a fixed bracket;

a pivot shaft rotatably extended through the fixed bracket;

a first limiting member rotatably sleeved on the pivot shaft;

a second limiting member non-rotatably sleeved on the pivot shaft, the second limiting member being rotated a

rotatable angle following the pivot shaft, and then driving the first limiting member to rotate together with the second limiting member;

wherein the total of the rotatable angle of the second limiting member relative to the first limiting member and the rotatable angle of the first limiting member relative to the fixed bracket is 360 degrees; the first limiting member forms a latching protrusion and a limiting tab; the second limiting member forms a latching tab; the second rotatable assembly further comprises a restricting module assembled on the fixed bracket, the restricting module comprises a first restricting member and a second restricting member; the second limiting member further forms a limiting protrusion; the limiting tab of the first limiting member abuts the first restricting member to prevent the pivot shaft from rotating further in a first direction; the limiting protrusion of the second limiting member abuts the second restricting member to prevent the pivot shaft from rotating further in a second direction.

7. The dual-axis hinge mechanism of claim 6, wherein the restricting module further comprises a pin; the first restricting member is fixed on the fixed bracket;

the second restricting member is rotatably assembled on the fixed bracket by the pin; the first restricting member comprises a main body and a restricting portion thinner than the main body; the thickness difference between the main body and the restricting portion is larger than the thickness of the second restricting member, thus the second restricting member can be rotated into a gap defined between the restricting portion and the fixed bracket.

8. The dual-axis hinge mechanism of claim 7, wherein the restricting module further comprises a torsion spring non-rotatably sleeved on the pin; the second restricting member comprises two side walls; the torsion spring comprises a first latching portion and a second latching portion respectively abutting inner surfaces of the side walls of the second restricting member.

9. The dual-axis hinge mechanism of claim 6, wherein the second rotatable assembly further comprises a positioning member non-rotatably sleeved on the pivot shaft; the fixed bracket defines a positioning groove, the positioning member forms a positioning protrusion engaged in the positioning groove of the fixed bracket.

10. The dual-axis hinge mechanism of claim 6, wherein the rotatable bracket comprises a flat sheet, and a side sheet extending substantially perpendicularly from an end of the flat sheet; the flat sheet defines a mounting hole, the side sheet defines an assembling hole; the first rotatable assembly comprises a rotating shaft having a shaft head to be engaged in the assembling hole of the side sheet; the pivot shaft comprises a shaft head to be engaged in the mounting hole of the flat sheet.

11. The dual-axis hinge mechanism of claim 10, wherein the first rotatable assembly further comprises a connecting member and a rotating member rotatably sleeved on the rotating shaft; the connecting member defines an engaging groove, the rotating member forms an engaging protrusion engaged in the engaging groove of the connecting member.

12. The dual-axis hinge mechanism of claim 11, wherein the first rotatable assembly further comprises a stationary member non-rotatably sleeved on the rotating shaft; the rotating member defines a positioning groove in a side surface, the stationary member forms a positioning protrusion engaged in the positioning groove of the rotating member.

13. The dual-axis hinge mechanism of claim 10, wherein the first rotatable assembly further comprises a frictional